ABSRACT OF THE DISCLOSURE

This electric motor vehicle is unique because it has just two wheels parallel to one another. Steering is achieved by the differential rotation of the two wheels with respect to one another -- reducing the turning radius of this vehicle to the mere distance between the centres of the ground contact areas of the two tyres. Traction is by two permanent magnet AC motors -- the stators on the axle circumference and the rotors on the inside of the wheel hubs. The outer circumference of the hollow axle which doubles up as the vehicle shell is more than half of the maximum outer circumference of the tyre on the wheel. The heavy-weight electrical energy storage devices, mostly electrical accumulators, are positioned at the bottom of the hollow axle-shell. This brings down the centre of gravity well below the common geometrical centre of the two parallel wheels; providing inertial stability to the vehicle shell, when torque is applied by the wheel motor. This location of the accumulators also results in ease while changing them. Large diameter of the hollow axle seats either one or two passengers, and allows entry or access through the side faces of the axle-shell around the whole perimeter of which the wheel rotates. Braking is fully electromagnetically regenerative, with an electromechanical parking brake for each wheel. Due to the huge diameter of the wheel motors, regenerative braking is very effective. Rolling on the road surface is more efficient due to the large diameter of the wheels, which results in the increase of the effective travelling range of the vehicle and obviates the use of shock absorber. As there are no mechanical linkages for steering and braking, both being fully electrical, it is possible to link two or more similar vehicles to mimic virtual dynamic towing, either one behind the other or sideways, or both -- bringing about flexibility and economy of use. The absence of conventional mechanical gears, steering, suspension and brakes, makes this two-wheel electric motor vehicle a new integrated truly electric motor vehicle.